

REMARKS

Claims 1-10 are currently pending in the application. By this amendment, claims 1-2, 4, and 8 are amended and claims 9-10 are added for the Examiner's consideration. Support for the amendment(s) and added claims 9-10 is provided in at least the originally filed claims, Figures 4-5, and related text of the specification. No new matter is added. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

Objection to Drawings

The drawings were objected to for not containing a legend such as --Prior Art--. Applicants submit herewith revised Figures 1-3 having an appropriate legend. Accordingly, Applicants respectfully request the objection to Figures 1-3 be withdrawn.

Objection to Abstract

The abstract of the disclosure has been objected to for containing over a hundred fifty words (150). Applicants submit an amended abstract containing less than the hundred fifty words (150). Accordingly, Applicants respectfully request the objection to the abstract be withdrawn.

Objection to Specification

The specification has been objected to for containing informalities. These informalities and oversights have been corrected as provided in the amendments to specification section of this response. Accordingly, Applicants respectfully request withdrawal of the objection to the specification.

35 U.S.C. §103 Rejection

Claims 1-6 and 8 were rejected under 35 U.S.C. §103(a) for being unpatentable over U.S. Patent No. 6,571,272 issued to Ferguson, *et al.* ("Ferguson") in view of U. S. Patent No. 6,061,728 issued to Mead, *et al.* ("Mead") in further view of U.S. Patent No. 6,331,983 issued to Hagerty, *et al.* ("Hagerty"). Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over Ferguson in view of Mead in further view of Haggerty as applied to claim 6 above, and further in view of Applicant's admitted prior art. Applicants respectfully traverse these rejections.

The invention is relates to packet switching communication networks, and more particularly to a system and method for establishing a Systems Network Architecture (SNA) connection between a source SNA node and a target SNA node through a packet switching network using Data Link Switching (DLSw) access services. The invention eliminates the need for maintaining a table of all the possible DLSws nodes along with their status within a plurality of DLSW nodes. Thus, the complexities associated with the execution of Data Link Switching protocols within a Data Link Switching node are greatly reduced, e.g., overhead and complexity of the system at each node.

For example, the claimed invention provides for an undirected query from a SNA node to a target SNA node over a spanning tree. This enables a significant simplification over the prior art by reducing complexities associated DLSw protocols within a DLSw node and more particular the need to maintain and create tables at each node in order to determine which node is available. More particularly, claim 1 recites a combination of elements including, for example:

at said source DLSw access node, locating a target DLSw access node providing access to the target SNA node sending an undirected query over the spanning tree;

at target DLSw access node providing access to the target SNA node, in response to the undirected query, sending to the source DLSw access node a reply message comprising addressing

information of the target DLSw access node providing access to the target SNA node ...

None of the cited references teaches or suggests at least these features of the claimed invention.

To reject a claims under §103, three basic criteria must be met. These criteria include:

1. The prior art reference (or references when combined) must teach or suggest all the claim limitations.
2. There must be some suggestion or motivation in the references themselves to modify the reference or to combine reference teachings.
3. There must be a reasonable expectation of success for the modification or combination of references.

See Manual of Patent Examining Procedure (MPEP) § 2143 (8th Ed., Aug. 2001)

However, Applicants submit that these criteria have not been established by the Examiner. For example, the reference, as combined, would not teach or suggest all of the claim features. Additionally, Applicants submit that there would be no motivation to make such a combination as presented by the Examiner. Accordingly, Applicants respectfully submit that a *prima facie* case obviousness has not been established.

Ferguson

Ferguson is directed towards a method and apparatus for SNA/IP correlation with multiple DSW peer connections. The Examiner admits that Ferguson is materially deficient as a reference as it fails to show locating a target DLSw access node providing access to the target SNA by sending an undirected query over the spanning tree. (Office Action at 5).

Additionally, Applicants respectfully assert Ferguson fails to teach or suggest, for example,

“target DLSw access node providing access to the target SNA node, in response to the undirected query”

as required by claim 1. Rather, Ferguson is similar to the related art in that each DSLw requires a DLSW Table 350 as shown in FIG. 3 and column 10, lines 44-50. The invention, in contrast, eliminates the need or maintenance of a table at each DLSw node by sending an undirected query over the spanning tree.

Mead

Mead does not compensate for the deficiencies of Ferguson. Mead is directed to an arrangement for controlling network proxy device traffic on transparently-bridged local area network using a master proxy device. Although the Examiner attempts to cure the deficiencies of Ferguson by stating that Mead teaches different techniques that can be used to find a route to a target node including all-route explorers which broadcast an explorer frame to discover a route to a host node, such disclosure does not even remotely resemble that of the claimed invention. By example, to buttress the Examiner's argument, the Examiner directs Applicants to col. 2, lines 7-19, which discloses:

Different techniques may be used to learn a route through a source-route bridge, for example all-route explorers or single-route explorers. In the case of all-route explorers, host X sends an explorer frame to determine the remote location of host Y. Each bridge 12a, 12b receiving the explorer frame copies the frame onto all outbound ports. Route information is added to the explorer frames as they travel through the internetwork 10 via bridges 12c and 12d. When the explorer frames initially generated by host X reach host Y on LAN2, host Y replies to each received explorer frame using the accumulated route information. Upon receipt of all

response frames that specify their respective paths, host X chooses a path based on predetermined criteria.

As evident, however, Mead does not teach or suggest the features of the claimed invention, which are missing from the Ferguson reference. Mead teaches a complex system which requires adding information to explore frames as they travel through the internetwork 10 via bridges 12c and 12d. Mead requires the complexities of collecting all of the response frames that specify their respective paths, and having host X choose a path based on predetermined criteria. That is, each bridge 12a, 12b copies the explorer frame onto all outbound ports and route information is added to the explorer frames as they travel through the internetwork. As should be evident, this creates very large overhead which is avoided in the present invention. In contrast, the claimed invention significantly simplifies the prior art by reducing complexities associated DLSw protocols within a DLSw node by, e.g., sending out an undirected query over the spanning tree and waiting for a response from the target to establish the network.

Moreover, Mead does not teach or suggest, "at target DLSw access node providing access to the target SNA node, in response to the undirected query, sending to the source DLSw access node a reply message comprising addressing information of the target DLSw access node providing access to the target SNA node" as required by claim 1.

Applicants respectfully submit that there is also no motivation to combine the references. It would appear that the Examiner is picking and choosing from parts of Mead trying to satisfy the requisite elements in the claim, and then assembling these parts with Ferguson without any suggestion in either of these references for such a combination. This amounts to using hindsight reconstruction with the present invention's specification as a blueprint. This is improper, as the only motivation would be impermissible hindsight.

More specifically, Ferguson clearly uses tables in order to provide a network pathway which significantly contributes to overhead. This is one of the problems which are solved by the present invention. There is no suggestion within this reference to use anything other than tables to establish a connection. Mead, on the other hand, deals with its own complexities as described

above. It would appear that only after reading Applicants' disclosure would it have become apparent to one of skill in the art that the use of an undirected query over the spanning tree, in addition to other elements, can significantly reduce the complexities and overhead of a network. This, of course, cannot be used as motivation to combine the references and, as such, Applicants respectfully request the Examiner to direct Applicants' attention to any motivation or suggestion in either reference for the combination, as suggested.

Haggerty

Haggerty is directed to a multicast switch. The Examiner tries to cure the deficiencies of Ferguson and Mead with Haggerty. The Examiner asserts that Haggerty teaches that spanning trees reduce the number of messages transmitted during a broadcast through a network. (Office Action at 5). In contrast to these assertions, Haggerty does not teach or suggest, for example, "locating a target DLSw access node providing access to the target SNA node sending an undirected query over the spanning tree" as required by claim 1. Rather, Haggerty discloses at column 6, lines 12-22:

For efficient transmission, designated routers construct a spanning tree that connects all members of an IP multicast group. A spanning tree has just enough connectivity so that there is only one path between every pair of routers, and it is loop-free. If each router knows which of its links belongs to the spanning tree, it can copy an incoming multicast packet onto each of its outgoing tree links, generating only the minimum needed number of copies. Messages are replicated only when the tree branches, thus minimizing the number of message copies that are transmitted through the network.

Haggerty merely broadly discusses new multicast routing protocols being developed. In fact, Haggerty also discusses the use of making copies, very similar to that of Mead. But, Haggerty does not teach or suggest, "locating a target DLSw access node providing access to the target SNA node sending an undirected query over the spanning tree." Nor does Haggerty teach

or suggest, "sending to the source DLSw access node a reply message comprising addressing information of the target DLSw access node providing access to the target SNA node" as required by claim 1.

Claim 8 is allowable over the cited references for at least the similar reasons as discussed above with respect to claim 1. Claims 2-7, by virtue of its dependency from claim 1, include all the features of claim 1 and should be allowable over the applied art of record for the above reasons. Additionally, Applicants alleged admitted prior art fails to cure the deficiencies of Ferguson.

For at least the at least the foregoing reasons Applicants respectfully request withdraw of the rejection under 35 U.S.C. § 103.

Added Claims

In this response, claims 9-10 are newly added in order to capture the subject matter of the invention from different perspectives. These claims 9-10 are directed to the features fully described in the specification but not disclosed or suggested in the art of record.

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CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 09-0457.

Respectfully submitted,

A handwritten signature in black ink, consisting of several overlapping loops and a horizontal line at the bottom.

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